

ABSTRACT OF THE DISCLOSURE

A system and method for estimating a channel in a wireless receiver is disclosed. The method preferably applies to a communication system using the OFDM standard.

5 The method comprises receiving a block of "n" transmitted symbols, the symbols including pilot symbols and "d" data symbols, estimating a channel using the pilot symbols to create a channel estimate, choosing a group of "m" strongest symbols from the "d" received symbols, compensating the "m" strongest symbols using the channel estimate to create a group of "m" compensated symbols, re-estimating the channel using

10 the group of "m" compensated symbols and pilot symbols; and either (1) repeating the steps of choosing a group of "m" strongest symbols, compensating the group of "m" strongest symbols and re-estimating the channel, or (2) using a latest channel estimate to compensate all symbols within the block. The system comprises a wireless receiver having an estimator programmed, for example, using DSP or ASIC and imbedded into

15 the wireless system design software for accomplishing the steps set forth according to the method.